

SEMI-RIGID POLYUREA JOINT FILLER

- Low yellowing in UV exposure
- Large shave-time window allows for greater flexibility in scheduling joint filling operations
- Will cure in temperatures as low as -29°C
- Fast setting formula reduces downtime
- Tough performance reduces floor joint repairs and maintenance
- No priming required

PRODUCT DESCRIPTION:

Pro-Struct 747 Semi-rigid Polyurea Joint Filler represents a new generation of polyurea technology with features and benefits unlike any other polyurea joint filler on the market. Pro-Struct 747 Semi-rigid Polyurea Joint Filler resists fading from ultraviolet light greater than any existing product. It is a fast-setting, semi-rigid polyurea, primarily used for filling construction and control joints in industrial and commercial concrete floors. Pro-Struct 747 Semi-rigid Polyurea Joint Filler can be shaved flush with the floor one hour after placement or up to 24 hours later. Pro-Struct 747 Semi-rigid Polyurea Joint Filler supports and protects joint edges from heavy loads and wheel traffic, reducing spalling of the joint edges.

USES:

- Concrete construction and control joints
- Cracks and joint repair for old floors
- Industrial and commercial floors
- Freezer floors

PACKAGING & COVERAGE:

40 Litres two component kit made up of 20 litres Part A and 20 litres Part B. Dual pack 400ml cartridges are also available.

The following table gives guidelines on theoretical material estimates in linear metres/litre:

JOINT WIDTH	JOINT DEPTH		
	38mm	51mm	63mm
4.8mm	5.5m	4.2m	3.2m
6.4mm	4.2m	3.2m	2.4m
9.5mm	2.6m	2.1m	1.6m

SHELF LIFE:

6 Months in original, unopened package and if stored in dry conditions. High humidity and heat exposure will reduce the shelf life.

TYPICAL PROPERTIES AT 25°C	
Gel Time	28 Seconds
Shore D ASTM D2440	30 to 40
Shore A ASTM D2440	80 to 90
Tensile Strength at 14 Days, ASTM D638	8.9 Mpa
Elongation at Break at 14 Days, ASTM D638	249%
Shave "Window"	1 to 24 Hours
Tack-free Time	3 to 4 Minutes
Traffic Ready Time	
Light Traffic	1 Hour
Heavy Traffic	2 Hours
Adhesion to Concrete, ASTM D4541	1.7 Mpa at 7 days
Clean-up of Tools	Pro-Struct 105
CHEMICAL RESISTANCE, ASTM D1308	
Acetic Acid, 10%	No effect
Alcohol, 10%	No effect
Ammonium Hydroxide	No effect
Brake Fluid	Swelled, softened
Diesel Fuel	Discoloured
Ethylene Glycol (antifreeze)	No effect
Gasoline	Stained
Hydrochloric Acid, 20%	Slight swelling
JP-4 Jet Fuel	No effect
Used Motor Oil	Stained
Salt Water	No effect
Sodium Hydroxide, 10%	Slight discoloured
Sulfuric Acid, 10%	No effect
Xylene	No effect

APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

PLACEMENT GUIDELINES

SCOPE OF WORK (BOQ):

Prepare joints, ensuring clean and dry before applying Pro-Struct 747 Semi-rigid Polyurea Joint Filler through a 1:1 ratio dispensing pump to fill joints to full depth. Shave off excess level with floor.

SURFACE PREPARATION:

All joints to be filled must be clean and dry. All oil, dirt, debris, paint and any other material that may be a bond breaker must be removed. The final step in cleaning must be the complete removal of all residue with a vacuum cleaner and oil-free compressed air. All joint facings must possess an open surface texture with all curing compounds and sealers removed. If this product will be used for filling floor cracks, the cracks must be routed and cleaned before filling. For proper installation, all edges must be squared off.

JOINT BACKING:

To provide proper load transfer, Pro-Struct 747 Semi-rigid Polyurea Joint Filler must be filled full depth of the joint or crack. Do not use backer rod or other fill material for the purpose of reducing volume. Dried silica sand, 1.5 to 3mm, may be used to fill the crack at the bottom of the joint and prevent three-sided adhesion.

PRIMING:

Pro-Struct 747 Semi-rigid Polyurea Joint Filler does not require a primer on sound concrete before application. Stonprime 639 should be used for porous surfaces. Allow primer to dry before application of the sealant is started.

MIXING:

Due to its extremely fast set time, Pro-Struct 747 Semi-rigid Polyurea Joint Filler requires plural component machine mixing and placing. Slowly premix Part A and Part B separately before using, with a slow speed drill and mixing paddle for 2 to 3 minutes. Do not whip air into the Part B while mixing. Follow mechanical pump manufacturer's equipment instructions for operation.

NOTE: If Pro-Struct 747 Semi-rigid Polyurea Joint Filler is to be stored in the dispensing pump overnight, place a sheet of plastic wrap directly on top of the liquid material in each tank to prevent exposure to air.

PLACEMENT:

Pro-Struct 747 Semi-rigid Polyurea Joint Filler must be installed in the joint full depth. Joints should be slightly overfilled and shaved level with the surrounding joint edges, giving the floor joints a flat appearance. Shaving off excess Pro-Struct 747 Semi-rigid Polyurea Joint Filler can begin approximately 1 hour after placement, and up to 24 hours later, depending on jobsite conditions such as the concrete and ambient temperatures.

PRECAUTION/LIMITATIONS:

- Based on ACI 302 recommendations, joint fillers should be applied as late as possible after construction to allow for minimal additional slab shrinkage. Consult ACI 302 comments regarding concrete shrinkage, joint filling and user expectations.
- Pro-Struct 747 Semi-rigid Polyurea Joint Filler material and all application equipment should be kept at ambient temperatures of 10°C or above.
- Do not use Pro-Struct 747 Semi-rigid Polyurea Joint Filler as an expansion joint sealant.
- Widening of the joint over time, beyond the limitations of the product could result in splitting of the filler (refer to Joint Filler Maintenance Procedure).
- Contact surfaces must be clean and dry for best adhesion.
- Joint edges must be thoroughly cleaned prior to filling, particularly if a floor sealer or densifier has been applied.
- Product may slightly discolour if constantly exposed to exterior UV radiation.
- In all cases, consult the Material Safety data Sheet before use.

CAUTION: MAY CONTAIN FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRONIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NON-FERROUS TOOLS AND TO WEAR CONDUCTIVE AND NON-SPARKING SHOES.



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PRO-STRUCT 747 SEMI-RIGID POLYUREA JOINT FILLER MAINTENANCE PROCEDURE

The following procedures are provided for the cleaning and maintenance of Pro-Struct 747 Semi-rigid Polyurea Joint Filler. These procedures may vary due to the type and amount of traffic over the joints, chemical exposure, and other in-use conditions.

DAILY CARE:

Dust and dirt removal from concrete floors, including over joint filler, is accomplished on a day-to-day basis through the use of large dust mops, which may be treated with a dust attractor. Commercial vacuuming is another useful alternative. Dry buffing with a soft bristled brush or an electric buffing machine will loosen most well-bonded dirt, which can then be removed with a dry mop or vacuum cleaner.

PERIODIC CLEANING:

Concrete floors and joint filler may need to be wet cleaned on occasion. Water soluble, non-acidic detergent should be added to the floor to emulsify surface soil. While cleaning, all dirty detergent water is to be removed using a vacuum, clean mop or squeegee to prevent re-depositing of dirt onto the floor. If mop rinsing is elected, change the rinse water frequently.

Deep cleaning with an electric scrubbing machine may be necessary depending on the amount and type of dirt and debris. Caution should be taken in the selection and use of scrubbing pads. Do not use materials that will scratch or mar the surface of the concrete or joint filler. Stubborn tire marks or other scuffs can normally be carefully removed with citrus-based industrial cleaners. Buffing the mark or scuff with the cleaner should remove the scuff or rubber residue.

JOINT FILLER SEPARATION REPAIR OPTION:

Because all concrete shrinks, and joints widen over time, it is common for semi-rigid joint filler to split or separate in the joint if it was installed before the slab shrinkage has fully occurred. This is not an indication of joint filler failure, as stated in ACI Section 9.10 or ACI 302.1R-04 (Guide for Concrete Floor and Slab Construction). If correcting this separation is necessary or desired, the following methods can be used:

1. Clean dirt and debris from separation voids, solvent wipe the surface with Carboline Thinner # 76 to remove any remaining grime, and refill (overflow) with Pro-Struct 747 Semi-rigid Polyurea Joint Filler. Razor off excess filler flush with the concrete surface.

OR

2. Saw out top 12mm of joint filler using dustless concrete saw or crack chaser, remove any dirt and debris from filler surface, solvent wipe to remove any remaining grime and refill (overflow) with Pro-Struct 747 Semi-rigid Polyurea Joint Filler. Razor off excess filler flush with the concrete surface.

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